**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA**

GROOVE DIGITAL, INC.,   )
       Plaintiff,   )
)
       v.   )   C.A. NO. 1:18-cv-00966-LO-TCB
)
UNITED BANK,   )   JURY TRIAL DEMANDED
and   )
)
FIDELITY INFORMATION SERVICES, LLC   )
       Defendants.   )
)

PLAINTIFF'S SECOND AMENDED COMPLAINT

Plaintiff Groove Digital, Inc. ("Groove Digital") hereby submits its Second Amended Complaint against Defendants United Bank and Fidelity Information Services, LLC ("FIS").

PARTIES

1.   Plaintiff Groove Digital is a corporation organized and existing under the laws of Delaware with its principal place of business at 445 Minnesota Street, Suite 1500, St. Paul, Minnesota 55101. Groove Digital's principals include Sam Gaidemak and Paul Chachko, the named inventors on U.S. Patent No. 9,454,762, titled "System and Method for the Delivery of Content to a Networked Device" ("the '762 Patent"). Groove Digital is the owner of the '762 Patent by assignment.

2.   Defendant United Bank is a Virginia corporation with its principal place of business at 2071 Chain Bridge Road, Vienna, VA 22182.

3.   United Bank directly and/or indirectly imports, distributes, markets, sells and/or offers to sell throughout the United States, including in this judicial district, products and/or services that infringe the claims of the '762 Patent as described below.

4.   Defendant FIS is an Arkansas limited liability company with its principal place of business at 601 Riverside Avenue, Jacksonville, FL 32204. FIS may be served in Virginia via its registered agent, CT Corporation System, 4701 Cox Road, Suite 285, Glen Allen, VA 23060.

JURISDICTION AND VENUE

5.   This is an action for patent infringement, arising under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*

6.   This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a).

7.   United Bank conducts substantial business in this judicial district, including, but not limited to, regularly soliciting business from, doing business with, and deriving revenue from goods and services provided to customers in this district. United Bank has infringed the '762 Patent in this judicial district, and such acts are continuing. United Bank further maintains a regular and established place of business in this district. Because United Bank is a Virginia corporation that has committed acts of patent infringement in this judicial district and maintains a regular and established place of business in this district, this Court has personal jurisdiction over United Bank.

8.   Because United Bank has committed acts of patent infringement in this judicial district, provides services and/or products in this judicial district, maintains a regular and established place of business in this district, and otherwise has minimum contacts here, venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), (c), and 1400(b).

9.   United Bank has consented to venue in this district. Mot. To Transfer (Dkt. No. 26) at 1.

10.   FIS conducts substantial business in this judicial district, including, but not limited to, regularly soliciting business from, doing business with, and deriving revenue from goods and services provided to customers in this district. FIS has infringed the '762 Patent in this judicial district, and such acts are continuing. FIS further maintains a regular and established place of business in this district at 13454 Sunrise Valley Drive, Suite 400, Herndon, VA 20171. Because FIS has committed acts of patent infringement in this judicial district and maintains a regular and established place of business in this district, this Court has personal jurisdiction over FIS.

11.   Because FIS has committed acts of patent infringement in this judicial district, provides services and/or products in this judicial district, maintains a regular and established place of business in this district, and otherwise has minimum contacts here, venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), (c), and 1400(b).

U.S. PATENT NO. 9,454,762

12.   Sam Gaidemak has had an inventive nature since childhood, coming up with innovative concepts since as far back as 1979. In 2004, he first had the groundbreaking idea that eventually matured into the '762 Patent. Over the course of the next year, Mr. Gaidemak and coinventor Paul Chachko worked diligently to refine the concept. They filed a provisional patent application on March 18, 2005, then filed a non-provisional application on March 17, 2006. They prosecuted the application for over ten and a half years before the United States Patent and Trademark Office duly and legally issued the '762 Patent on September 27, 2016. Groove Digital is the owner by assignment of all right, title and interest in and to the '762 Patent, including the

right to sue, enforce and recover damages for all past, present, and future infringement of the patent. A true and correct copy of the '762 Patent is attached as Exhibit A.

13.   The '762 Patent generally claims improvements in the delivery and display of digital content to computer systems by using applet applications (colloquially known as "apps"). The improvements include the use of app-based alerts known as "push notifications" to provide (i) content directly to a device, and (ii) browser links to specific web pages known as "deep-link URLs." Additional improvements include the ability of the apps to passively deploy and terminate operation without requiring any input from the user of the device and to deliver content independent of the browser used. Each of those features represents a use of app technology that was unconventional as of March 18, 2005, when Mr. Gaidemak and Mr. Chachko submitted their provisional patent application to the U.S. Patent & Trademark Office. For example, Apple's App Store, the first widely-available digital distribution platform for such apps, did not open until July 2008, more than two years after the '762 Patent's application date.

14.   As a result of the improvements provided by the '762 Patent, the overall functionality of computer systems' content delivery has been improved to the extent that passively-deployed browser-independent app-based content accounts for an increasingly substantial portion of content delivery in the smartphone and tablet market. Apple's App Store, for example, has increased its available applications from 500 in 2008 to more than 2 million in 2017. Similarly, Google's app store, known as Google Play (launched in 2008 as Android Market) now offers almost 3 million apps which, collectively, have been downloaded over 82 billion times. This explosion in passively-deployed browser-independent app-based content delivery and display would not have been possible without the technology claimed by the '762 Patent.

15.   The application for the '762 Patent spent over ten years in prosecution before the patent issued on September 27, 2016. In that time, it overcame numerous prior art references as well as a rejection under 35 U.S.C. § 101. The examiner thus considered the patentability of the claimed inventions and allowed them under the stricter § 101 standard set by the Supreme Court in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. __, 134 S. Ct. 2347 (2014) and its progeny.

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COUNT I –
INFRINGEMENT OF U.S. PATENT NO. 9,454,762 BY UNITED BANK

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16.   Groove Digital re-alleges and incorporates herein by reference the allegations stated in paragraphs 1-15 of this Complaint.

17.   United Bank has infringed and is continuing to infringe, literally or through the doctrine of equivalents, directly, jointly, or indirectly, contributorily and/or through the inducement of others, one or more claims of the '762 Patent, by making, using, offering to sell and/or selling in this judicial district and elsewhere within the United States and/or importing into the United States its "Bank With United," "Bank With United Business," and "Bank With United Tablet" mobile banking applications (the "United Bank Accused Products"), which are within the scope of the claims of the '762 patent as described below, constituting infringement under 35 U.S.C. § 271 (a), (b), (c) and/or (g). The United Bank Accused Products include software and hardware components, including microprocessors, software, and databases, for the delivery and display of content, which components embody the inventions of the '762 Patent.

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Direct Infringement

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18.   United Bank's direct infringement includes, without limitation, using the systems and methods of claims 1-37 of the '762 Patent. Specifically, United Bank's direct infringement includes, among other things, making, using, selling, offering to sell and importing a system and

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method by which it delivers the United Bank Accused Products to a networked device that in turn

delivers and displays content in the manner claimed in the above-identified claims.

19.   For example, claim 1 requires

A system for delivering information to a networked device of a user, the system comprising:

a microprocessor running a software application for delivering an applet application to the networked device and managing the delivery of the applet application to the networked device,

wherein the applet application passively deploys one or more applets at a time of deployment,

wherein the applet application provides for delivery of content to the networked device and a display of the content in a predetermined portion of a user display that is less than an entire display of the networked device, by the one or more applets,

wherein the one or more applet is configured to deploy at least one of independent of or in conjunction with an internet browser window,

wherein an internet browser is configured to deploy subsequent to deployment of the one or more applets based on at least one action or inaction of the user,

wherein at least one of the applets is configured to become idle upon deployment of the internet browser,

and wherein the deployment of the one or more applets is such that at the time of deployment of the one or more applets the user can continue to operate the networked device in a state prior to the deployment of the one or more applets;

a first database coupled to the microprocessor and storing a first set of information relating to the user;

and a second database coupled to the microprocessor and including a second set of information for comparison to the first set of information,

wherein the microprocessor compares the first set of information to the second set of information to determine whether the content should be transmitted to the networked device for display by the one or more applets.
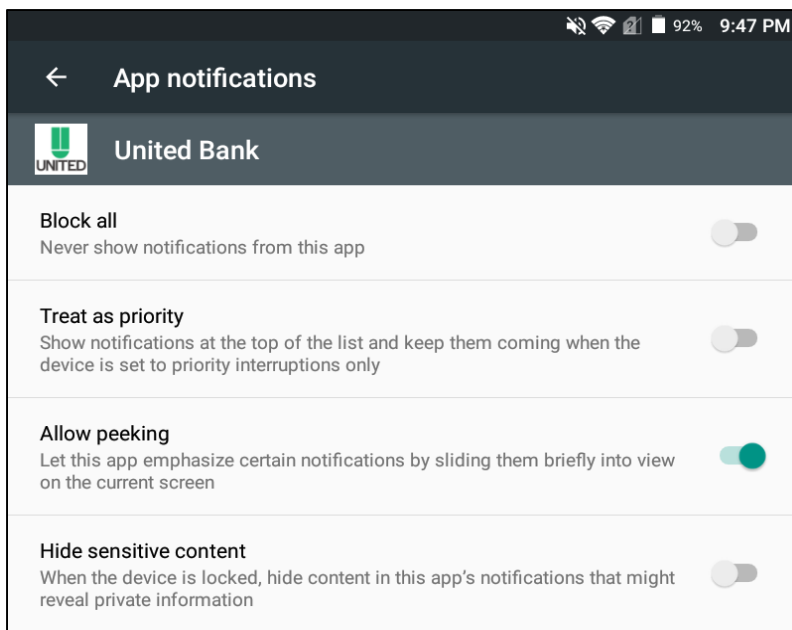
Ex. A at col. 14, ll. 9-43. The United Bank Accused Products meet every limitation of claim 1,

either literally or under the Doctrine of Equivalents, as set forth in more detail below.

20.   The United Bank Accused Products are available on server-side digital delivery platforms, such as the Apple App Store, Google Play Store or Amazon App Store:

> The downloadable mobile application is available on iPhone and Android devices. The App can be downloaded by searching for United VA on the App Store or Google Play Store, or by entering the mobile web URL (http:m.bankwithunited.com) in your phone's browser and selecting the appropriate app.

Ex. B at 4. Upon receiving a request to download one or more of the United Bank Accused Products, the digital delivery platform uses a microprocessor on the server to both deliver and manage the delivery of the United Bank Accused Products to a client-side device such as a smartphone or tablet. The microprocessor delivers the United Bank Accused Products in the form of software applets.

21.   The software applets in the United Bank Accused Products include notifications that are designed to deploy without requiring any action by the user. Depending on the platform used, these passively-deployed notifications may be called "push notifications," "banners," "heads-up notifications," or "peeking," all of which are equivalent terms. For example, a user of the United Bank Accused Products on the Android platform may set up the notifications to allow "peeking," which is described as "sliding them briefly into view." A screenshot of the relevant Android notification center is shown below:

22.   The United bank Accused Products are designed to display notifications consistent with the requirements of the various platforms. For example, when Android "peeking" notifications deploy on a networked device, they are designed to do so in a small, predetermined portion of the networked device's screen, such as the top edge. Similarly, "banner" push notifications on the Apple platform appear at the top edge, while other notifications appear in a small center portion of the display area. By being configured to operate on the Android and Apple platforms, the push notifications in the United Bank Accused Products are thus designed to deploy in an area that is less than the entire display area of the networked device.

23.   Upon information and belief, the United Bank Accused Products work in conjunction with an internet browser window in at least two separate ways. First, the United Bank Accused Products are designed to use an internet browser to obtain the content that is displayed in the notification itself. Second, the United Bank Accused Products are designed to use an internet browser to provide a user with additional information beyond that which is provided in the notification, based on either an action or inaction of the user in response to the notification.

24.   Upon information and belief, the United Bank Accused Products are designed in some configurations to use an internet browser to deliver additional content in response to a user actively clicking on the notification and are designed in other configurations to use an internet browser to deliver the additional information based on user inactivity, such as through the expiration of a timer prior to any user action.

25.   Upon opening an internet browser, components of the United Bank Accused Products are designed to become idle for as long as the internet browser window is active. For example, on the Android platform, a user may click on a push notification to obtain additional information; the action in response to the user's action is called an "Activity." Upon starting such an Activity, such as opening an internet browser, prior Activities, such as the other software applications of the United Bank Accused Products, are designed to be "paused" (*i.e.*, idled) without being terminated. *See* https://developer.android.com/reference/android/app/Activity.html ("If an activity has lost focus but is still visible (that is, a new non-full-sized or transparent activity has focus on top of your activity), it is *paused*. A paused activity is completely alive (it maintains all state and member information and remains attached to the window manager), but can be killed by the system in extreme low memory situations") (emphasis in original). Upon information and belief, push notifications on other platforms operate in an identical manner.

26.   Android notifications such as the ones designed to be used by the United Bank Accused Products further allow a user to continue operating the networked device in the state that existed prior to the deployment of the push notification. For example, upon deployment of an Android push notification such as ones designed for use with the United Bank Accused Products, a user may continue to use the application that he or she was using prior to the appearance of the notification.   *See*   https://developer.android.com/guide/topics/ui/notifiers/notifications.html

("Users can act on, or dismiss, a heads-up notification without leaving the current app"). Upon

information and belief, push notifications on other platforms operate in an identical manner.

27.   The microprocessor of the United Bank Accused Products is designed to be

connected to multiple databases that store information related to the user. One such database is

designed to contain information about the user's notification preferences, while a second database

is designed to contain information about the user's account. Upon information and belief, the

United Bank Accused Products are designed to compare information from the two databases in

order to determine whether to send a push notification to the user containing account information.

28.   Upon information and belief, the United Bank Accused Products may be configured

such that both databases described above are contained within a single database, as required by

claim 2. In such a configuration, the user's notification preferences and account information are

stored in separate parts of a single database.

29.   Upon information and belief, the United Bank Accused Products may be configured

such that the databases described above are stored on the server side of the United Bank Accused

Products, as required by claim 3. In such a configuration, the user's notification preferences and

account information are kept on a server that is remote from the user's networked device. Ex. B at

3 ("no account data is ever stored on your mobile device").

30.   Upon information and belief, the United Bank Accused Products are configured

such that one of the databases described above contains demographic information about the user

as required by claim 4. In such a configuration, the database includes information about the user's

geographic location, including the user's state of residence.

31.   Upon information and belief, the United Bank Accused Products are configured in

such a way that the database that includes account information includes parameters set by United

Bank as required by claim 5. For example, United Bank determines which account information (i) is included in the account information database and/or (ii) may be sent to the user from the account information database.

32.   Upon information and belief, the United Bank Accused Products may be configured such that the information to be delivered to the user via the push notification is information promoting one or more United Bank services. In such configurations, the information to be delivered to the user constitutes an advertisement as required by claim 6.

33.   Upon information and belief, the United Bank Accused Products are designed to deliver notices and/or alerts to a user via push notification as required by claim 7. For example, the push notification is designed to include notices regarding the status of the user's bank account.

34.   Upon information and belief, the United Bank Accused Products are designed to include information based on predetermined criteria of the user as required by claim 8. For example, the United Bank Accused Products allow a user to schedule regular payments from one or more accounts. The United Bank Accused Products are then designed to notify the user via a push notification that the scheduled payment has been made.

35.   As noted above in paragraphs 21 and 26, the United Bank Accused Products are designed to display content to the user automatically (*i.e.*, passively) and without interrupting the user's interaction with an active application as required by claim 9.

36.   As noted above in paragraph 22, the United Bank Accused Products are designed to display content to the user through the use of "peeking" notifications or "banner" notifications, which appear at the top edge of the display area. Such notifications meet the limitations of claim 10, which requires that the content appear in a window that enters from an edge of the display area.

37.   Upon information and belief, the United Bank Accused Products may be configured so that the apps sit in a designated location on the bottom of the device's home screen. Such a location is a system tray as required by claim 11.

38.   As noted above in paragraph 20, the microprocessor of the United Bank Accused Products resides on the server side, which is by definition remote from the networked device as required by claim 12.

39.   Upon information and belief, the United Bank Accused Products may be configured such that certain software components retreat into the system tray upon deployment of an internet browser window. Software components that retreat into the system tray may move into a suspended state, becoming idle as required by claim 13.

40.   Claims 14-21 are method claims that correspond to claims 1 and 4-10. United Bank directly infringes claims 14-21 when it operates the United Bank Accused Products as designed to deliver, display, and organize content in the manner described in paragraphs 20-27 and 30-36 above, which are incorporated herein by reference.

41.   Upon information and belief, the United Bank Accused Products are designed to use an internet browser and deliver additional content to a user upon an action or inaction of the user as described above in paragraph 24, which is incorporated herein by reference. That additional content is the third set of information required by claim 22. United Bank directly infringes claim 22 when it operates the United Bank Accused Products as set forth above to deliver additional content to a user.

42.   Upon information and belief, the United Bank Accused Products may be configured to deliver the additional content described in paragraph 41 above in an audiovisual format, such as

a video. When United Bank operates the United Bank Accused Products as designed to deliver audiovisual content in response to a user's action, it directly infringes claim 23.

43.   As described above, the action of the user that triggers the delivery of additional content may be a user's mouse click on a push notification. United Bank directly infringes claim 24 when it operates the United Bank Accused Products as designed to deliver additional content to the user in response to the user's mouse click.

44.   Claims 25-35 correspond to claims 1, 4-10, and 22-24 with the additional requirement of "computer readable program code." Because the United Bank Accused Products are software products which are comprised of computer readable program code, United Bank infringes claims 25-35 for the reasons set forth above in paragraphs 20-27, 30-36, and 41-43, all of which are incorporated herein by reference.

45.   Claims 36 and 37 correspond to claim 1. United Bank infringes claims 36 and 37 for the reasons set forth in paragraphs 20-27, which are incorporated herein by reference.

46.   As a result of the activities described above, United Bank is liable for direct infringement of the above-identified claims of the '762 Patent under 35 U.S.C. § 271(a).

47.   To the extent any elements of claims 1-13 or 25-37 are provided by any entity other than United Bank, they do so pursuant to United Bank's knowledge, direction and control. For example, if the microprocessor or databases in claims 1-13 and 25-37 or any of the computer readable program code or databases in claims 25-35 are provided by Apple or Google as part of their digital delivery platforms, both entities provide those elements at the direction and control of United Bank. Upon information and belief, neither Apple nor Google has any discretion whether to provide those elements in response to a request from a United Bank customer, but are both required to provide them pursuant to their agreements with United Bank to host the United Bank

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Accused Products on their digital delivery platforms, which agreements set out the manner and timing requirements by which they are to provide the United Bank Accused Products to a user. Accordingly, under those circumstances, the provision of all limitations is attributable to United Bank, who remains liable for direct infringement.

48.   Similarly, to the extent that any elements of claims 1-13 or 25-37 are provided by United Bank's customers, they do so at United Bank's direction and control. For example, to the extent that the networked device, databases, or information in claims 1-13 and 25-37 are provided by United Bank's customers, they do so pursuant to their agreement with United Bank, which, upon information and belief, specifies the manner and timing of the user's provision of a networked device, database or information in connection with the United Bank Accused Products. Accordingly, the provision of those elements by a user of the United Bank Accused Products is attributable to United Bank, who is liable for direct infringement.

49.   To the extent any steps of method claims 14-24 are performed by any entity other than United Bank, those entities perform those steps under United Bank's direction and control. For example, to the extent Apple or Google perform any of the steps in claims 14-24 as part of their digital delivery platforms, such as the delivery of the applet application to a networked device, they do so pursuant to United Bank's direction and control. Upon information and belief, neither Apple nor Google has any discretion whether to perform those steps in response to a request from a United Bank customer, but are both required to provide them pursuant to their agreement with United Bank, which sets out the manner and timing of the performance of those steps. Accordingly, under those circumstances, the performance of all limitations is attributable to United Bank, who remains liable for direct infringement.

50.   Similarly, to the extent that any steps of claims 14-24 are performed by United Bank's customers, they do so at United Bank's direction and control. For example, to the extent that steps in claims 14-24 are performed by United Bank's customers, they do so pursuant to their agreement with United Bank, which, upon information and belief, specifies the manner and timing of the user's performance of those steps in connection with the United Bank Accused Products. For example, upon information and belief, United Bank provides terms and conditions to which users must agree before receiving access to the United Bank Accused Products, and the terms and conditions set out requirements and obligations that dictate how and under what conditions the users may operate any aspect of the United Bank Accused Products. In addition, United Bank's website provides instructions and requirements to its customers for use of the United Bank Accused Products. Accordingly, the performance of any of the steps of the claims by United Bank's customers is attributable to United Bank, who is liable for direct infringement.

51.   Upon information and belief, United Bank literally infringes each element of the Asserted Claims. To the extent any factfinder concludes that United Bank does not literally satisfy any element of the claims of the '762 Patent, however, those elements may be met under the Doctrine of Equivalents.

Indirect Infringement

52.   Alternatively and in addition to its liability for direct infringement of the above-identified claims of the '762 Patent, United Bank is also liable for indirectly infringing the above-identified claims of the '762 Patent in this judicial district and elsewhere in the United States by inducing direct infringement in violation of 35 U.S.C. § 271(b) and by contributing to direct infringement in violation of 35 U.S.C. § 271(c).

53.   United Bank has been aware of the '762 Patent since at least December 5, 2017 and its infringement is ongoing.

54.   The direct infringement induced or contributed to by United Bank includes the use of the United Bank Accused Products by United Bank's customers acting in combination with United Bank.

55.   United Bank induces direct infringement of the above-identified claims of the '762 Patent by at least widely publicizing its United Bank Accused Products and providing on its website tools and instructions for its customers to provide certain limitations and/or perform certain steps that result in the directly infringing use. For example, United Bank instructs its users how to download the United Bank Accused Products onto a networked device:

How do I install the downloadable application?

For iPhone or iPad:
- Navigate to the App Store
- Search for United Bank VA
- Select "Install" to download the application
- iPhone 3 needs to run on IOS 5.0 or higher to be compatible with mobile banking.

For Android:
- Navigate to the Google Play Store
- Search for United Bank VA
- Select "Install" to download the application

For Kindle Fire:
- Navigate to the Amazon Appstore and select Kindle Fire Apps
- Search for United Bank VA
- Select "Install" to download the application

Ex. B at 4. Upon information and belief, United Bank further provides instructions to its customers for use of the United Bank Accused Products to set up notifications and obtain account information in manners that infringe the above-identified claims of the '762 Patent. Since at least December 5, 2017, when it was placed on notice that its United Bank Accused Products infringed the claims of the '762 Patent, United Bank has actively encouraged its customers to commit direct infringement

of the above-identified claims of the '762 Patent with knowledge that the acts so encouraged constitute infringement and a specific intent to infringe the above-identified claims of the '762 Patent.

56.   United Bank's specific intent to cause its customers to directly infringe is shown by its knowledge of the '762 Patent and its knowledge that the United Bank Accused Products infringe the above-identified claims of the '762 Patent, as set forth above.

57.   Similarly, United Bank contributes to direct infringement of the asserted claims of the '762 Patent by providing its customers with tools for operating the United Bank Accused Products, including the downloading of applet applications as described above. Those tools are specific to the United Bank Accused Products and are thus not staple articles of commerce. Nor do those tools have any substantial non-infringing uses, as their sole purpose is to deliver the United Bank Accused Products to United Bank's customers in a manner that infringes the asserted claims of the '762 Patent. United Bank specifically designed (or had designed on its behalf) those tools to be used solely in connection with the United Bank Accused Products in a manner that directly infringes the asserted claims of the '762 Patent.

COUNT II –
INFRINGEMENT OF U.S. PATENT NO. 9,454,762 BY FIS

58.   Groove Digital re-alleges and incorporates herein by reference the allegations stated in paragraphs 1-57 of this Complaint.

59.   FIS has infringed and is continuing to infringe, literally or through the doctrine of equivalents, directly, jointly, or indirectly, contributorily and/or through the inducement of others, one or more claims of the '762 Patent, by making, using, offering to sell and/or selling in this judicial district and elsewhere within the United States and/or importing into the United States its "Mobile Banking" and "Mobile Wallet" products (the "FIS Accused Products"), which are within

the scope of the claims of the '762 patent as described below, constituting infringement under 35

U.S.C. § 271 (a), (b), (c) and/or (g). The FIS Accused Products include software and hardware

components, including microprocessors, software, and databases, for the delivery and display of

content, which components embody the inventions of the '762 Patent.

Direct Infringement

60.   FIS's direct infringement includes, without limitation, using the systems and

methods of claims 1-37 of the '762 Patent. Specifically, FIS's direct infringement includes, among

other things, making, using, selling, offering to sell and importing a system and method by which

it delivers the FIS Accused Products to a networked device that in turn delivers and displays

content in the manner claimed in the above-identified claims.

61.   For example, claim 1 requires

A system for delivering information to a networked device of a user, the system
comprising:

a microprocessor running a software application for delivering an applet application
to the networked device and managing the delivery of the applet application to the
networked device,

wherein the applet application passively deploys one or more applets at a time of
deployment,

wherein the applet application provides for delivery of content to the networked
device and a display of the content in a predetermined portion of a user display that
is less than an entire display of the networked device, by the one or more applets,

wherein the one or more applet is configured to deploy at least one of independent
of or in conjunction with an internet browser window,

wherein an internet browser is configured to deploy subsequent to deployment of
the one or more applets based on at least one action or inaction of the user,

wherein at least one of the applets is configured to become idle upon deployment
of the internet browser,

and wherein the deployment of the one or more applets is such that at the time of deployment of the one or more applets the user can continue to operate the networked device in a state prior to the deployment of the one or more applets;

a first database coupled to the microprocessor and storing a first set of information relating to the user;

and a second database coupled to the microprocessor and including a second set of information for comparison to the first set of information,
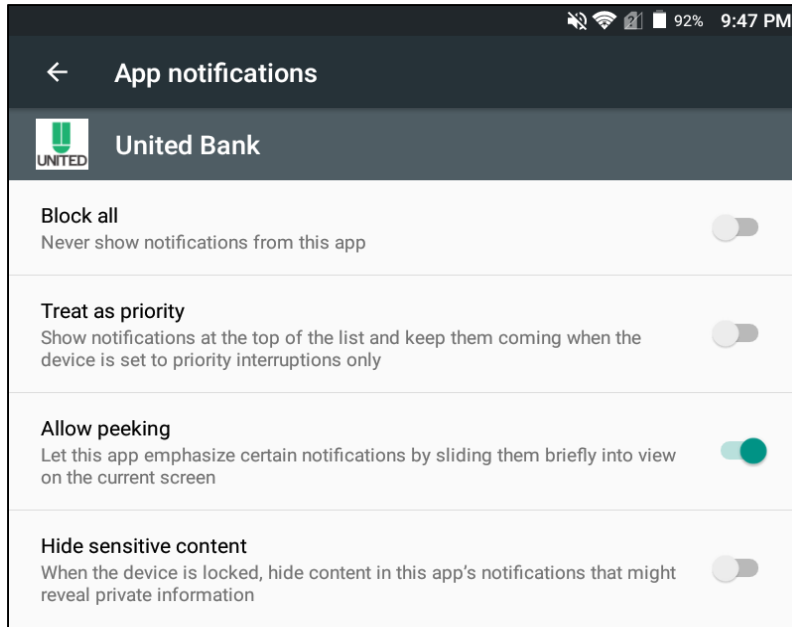
wherein the microprocessor compares the first set of information to the second set of information to determine whether the content should be transmitted to the networked device for display by the one or more applets.

Ex. A at col. 14, ll. 9-43. The FIS Accused Products meet every limitation of claim 1, either literally or under the Doctrine of Equivalents, as set forth in more detail below.

62.   The FIS Accused Products are available on server-side digital delivery platforms, such as the Apple App Store, Google Play Store or Amazon App Store. Upon receiving a request to download one or more of the FIS Accused Products, the digital delivery platform uses a microprocessor on the server to both deliver and manage the delivery of the FIS Accused Products to a client-side device such as a smartphone or tablet. The microprocessor delivers the FIS Accused Products in the form of software applets.

63.   The software applets in the FIS Accused Products include notifications that are designed to deploy without requiring any action by the user. Depending on the platform used, these passively-deployed notifications may be called "push notifications," "banners," "heads-up notifications," or "peeking," all of which are equivalent terms. For example, a user of the FIS Accused Products on the Android platform may set up the notifications to allow "peeking," which is described as "sliding them briefly into view." A screenshot of the relevant Android notification center is shown below:

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64.   The FIS Accused Products are designed to display notifications consistent with the requirements of the various platforms. For example, when Android "peeking" notifications deploy on a networked device, they are designed to do so in a small, predetermined portion of the networked device's screen, such as the top edge. Similarly, "banner" push notifications on the Apple platform appear at the top edge, while other notifications appear in a small center portion of the display area. By being configured to operate on the Android and Apple platforms, the push notifications in the FIS Accused Products are thus designed to deploy in an area that is less than the entire display area of the networked device.

65.   Upon information and belief, the FIS Accused Products work in conjunction with an internet browser window in at least two separate ways. First, the FIS Accused Products are designed to use an internet browser to obtain the content that is displayed in the notification itself. Second, the FIS Accused Products are designed to use an internet browser to provide a user with additional information beyond that which is provided in the notification, based on either an action or inaction of the user in response to the notification.

66.   Upon information and belief, the FIS Accused Products are designed in some configurations to use an internet browser to deliver additional content in response to a user actively clicking on the notification and are designed in other configurations to use an internet browser to deliver the additional information based on user inactivity, such as through the expiration of a timer prior to any user action.

67.   Upon opening an internet browser, components of the FIS Accused Products are designed to become idle for as long as the internet browser window is active. For example, on the Android platform, a user may click on a push notification to obtain additional information; the action in response to the user's action is called an "Activity." Upon starting such an Activity, such as opening an internet browser, prior Activities, such as the other software applications of the FIS Accused Products, are designed to be "paused" (*i.e.*, idled) without being terminated. *See* https://developer.android.com/reference/android/app/Activity.html ("If an activity has lost focus but is still visible (that is, a new non-full-sized or transparent activity has focus on top of your activity), it is *paused*. A paused activity is completely alive (it maintains all state and member information and remains attached to the window manager), but can be killed by the system in extreme low memory situations") (emphasis in original). Upon information and belief, push notifications on other platforms operate in an identical manner.

68.   Android notifications such as the ones designed to be used by the FIS Accused Products further allow a user to continue operating the networked device in the state that existed prior to the deployment of the push notification. For example, upon deployment of an Android push notification such as ones designed for use with the FIS Accused Products, a user may continue to use the application that he or she was using prior to the appearance of the notification. *See* https://developer.android.com/guide/topics/ui/notifiers/notifications.html ("Users can act on, or

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dismiss, a heads-up notification without leaving the current app"). Upon information and belief, push notifications on other platforms operate in an identical manner.

69.   The microprocessor of the FIS Accused Products is designed to be connected to multiple databases that store information related to the user. One such database is designed to contain information about the user's notification preferences, while a second database is designed to contain information about the user's account. Upon information and belief, the FIS Accused Products are designed to compare information from the two databases in order to determine whether to send a push notification to the user containing account information.

70.   Upon information and belief, the FIS Accused Products may be configured such that both databases described above are contained within a single database, as required by claim 2. In such a configuration, the user's notification preferences and account information are stored in separate parts of a single database.

71.   Upon information and belief, the FIS Accused Products may be configured such that the databases described above are stored on the server side of the Accused Products, as required by claim 3. In such a configuration, the user's notification preferences and account information are kept on a server that is remote from the user's networked device.

72.   Upon information and belief, the FIS Accused Products are configured such that one of the databases described above contains demographic information about the user as required by claim 4. In such a configuration, the database includes information about the user's geographic location, including the user's state of residence.

73.   Upon information and belief, the Accused Products are configured in such a way that the database that includes account information includes parameters set by FIS or its customers as required by claim 5. For example, FIS or its customers determine which account information (i)

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is included in the account information database and/or (ii) may be sent to the user from the account information database.

74.   Upon information and belief, the FIS Accused Products may be configured such that the information to be delivered to the user via the push notification is information promoting one or more customer services. In such configurations, the information to be delivered to the user constitutes an advertisement as required by claim 6.

75.   Upon information and belief, the FIS Accused Products are designed to deliver notices and/or alerts to a user via push notification as required by claim 7. For example, the push notification is designed to include notices regarding the status of the user's bank account.

76.   Upon information and belief, the FIS Accused Products are designed to include information based on predetermined criteria of the user as required by claim 8. For example, the FIS Accused Products allow a user to schedule regular payments from one or more accounts. The FIS Accused Products are then designed to notify the user via a push notification that the scheduled payment has been made.

77.   As noted above in paragraphs 63 and 68, the FIS Accused Products are designed to display content to the user automatically (*i.e.*, passively) and without interrupting the user's interaction with an active application as required by claim 9.

78.   As noted above in paragraph 64, the FIS Accused Products are designed to display content to the user through the use of "peeking" notifications or "banner" notifications, which appear at the top edge of the display area. Such notifications meet the limitations of claim 10, which requires that the content appear in a window that enters from an edge of the display area.

79.   Upon information and belief, the FIS Accused Products may be configured so that the apps sit in a designated location on the bottom of the device's home screen. Such a location is a system tray as required by claim 11.

80.   As noted above in paragraph 62, the microprocessor of the FIS Accused Products resides on the server side, which is by definition remote from the networked device as required by claim 12.

81.   Upon information and belief, the FIS Accused Products may be configured such that certain software components retreat into the system tray upon deployment of an internet browser window. Software components that retreat into the system tray may move into a suspended state, becoming idle as required by claim 13.

82.   Claims 14-21 are method claims that correspond to claims 1 and 4-10. FIS directly infringes claims 14-21 when it operates the FIS Accused Products as designed to deliver, display, and organize content in the manner described in paragraphs 62-69 and 72-78 above, which are incorporated herein by reference.

83.   Upon information and belief, the FIS Accused Products are designed to use an internet browser and deliver additional content to a user upon an action or inaction of the user as described above in paragraph 66, which is incorporated herein by reference. That additional content is the third set of information required by claim 22. FIS directly infringes claim 22 when it operates the FIS Accused Products as set forth above to deliver additional content to a user.

84.   Upon information and belief, the FIS Accused Products may be configured to deliver the additional content described in paragraph 83 above in an audiovisual format, such as a video. When FIS operates the FIS Accused Products as designed to deliver audiovisual content in response to a user's action, it directly infringes claim 23.

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85.   As described above, the action of the user that triggers the delivery of additional content may be a user's mouse click on a push notification. FIS directly infringes claim 24 when it operates the FIS Accused Products as designed to deliver additional content to the user in response to the user's mouse click.

86.   Claims 25-35 correspond to claims 1, 4-10, and 22-24 with the additional requirement of "computer readable program code." Because the FIS Accused Products are software products which are comprised of computer readable program code, FIS infringes claims 25-35 for the reasons set forth above in paragraphs 62-69, 72-78, and 83-85, all of which are incorporated herein by reference.

87.   Claims 36 and 37 correspond to claim 1. FIS infringes claims 36 and 37 for the reasons set forth in paragraphs 62-69, which are incorporated herein by reference.

88.   As a result of the activities described above, FIS is liable for direct infringement of the above-identified claims of the '762 Patent under 35 U.S.C. § 271(a).

89.   To the extent any elements of claims 1-13 or 25-37 are provided by any entity other than FIS, they do so pursuant to FIS's direction and control. For example, if the microprocessor or databases in claims 1-13 and 25-37 or any of the computer readable program code or databases in claims 25-35 are provided by Apple or Google as part of their digital delivery platforms, both entities provide those elements at the direction and control of FIS. Upon information and belief, neither Apple nor Google has any discretion whether to provide those elements in response to a request from an FIS customer, but are both required to provide them pursuant to their agreements with FIS and/or FIS's customers to host the FIS Accused Products on their digital delivery platforms, which agreements set out the manner and timing requirements by which they are to

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provide the FIS Accused Products to a user. Accordingly, under those circumstances, the provision of all limitations is attributable to FIS, who remains liable for direct infringement.

90.   Similarly, to the extent that any elements of claims 1-13 or 25-37 are provided by FIS's customers, they do so at FIS's direction and control. For example, to the extent that the networked device, databases, or information in claims 1-13 and 25-37 are provided by FIS's customers, they do so pursuant to their agreement with FIS, which, upon information and belief, specifies the manner and timing of the user's provision of a networked device, database or information in connection with the FIS Accused Products. Accordingly, the provision of those elements by a user of the FIS Accused Products is attributable to FIS, who is liable for direct infringement.

91.   To the extent any steps of method claims 14-24 are performed by any entity other than FIS, those entities perform those steps under FIS's direction and control. For example, to the extent Apple or Google perform any of the steps in claims 14-24 as part of their digital delivery platforms, such as the delivery of the applet application to a networked device, they do so pursuant to FIS's direction and control. Upon information and belief, neither Apple nor Google has any discretion whether to perform those steps in response to a request from an FIS customer, but are both required to provide them pursuant to their agreement with FIS, which sets out the manner and timing of the performance of those steps. Accordingly, under those circumstances, the performance of all limitations is attributable to FIS, who remains liable for direct infringement.

92.   Similarly, to the extent that any steps of claims 14-24 are performed by FIS's customers, they do so at FIS's knowledge, direction and control. For example, to the extent that steps in claims 14-24 are performed by FIS's customers, they do so pursuant to their agreement with FIS, which, upon information and belief, specifies the manner and timing of the user's

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performance of those steps in connection with the FIS Accused Products. For example, upon information and belief, FIS provides terms and conditions to which users must agree before receiving access to the FIS Accused Products, and the terms and conditions set out requirements and obligations that dictate how and under what conditions the users may operate any aspect of the FIS Accused Products. Accordingly, the performance of any of the steps of the claims by FIS's customers is attributable to FIS, who is liable for direct infringement.

93.   Upon information and belief, FIS literally infringes each element of the Asserted Claims. To the extent any factfinder concludes that FIS does not literally satisfy any element of the claims of the '762 Patent, however, those elements may be met under the Doctrine of Equivalents.

Indirect Infringement

94.   Alternatively and in addition to its liability for direct infringement of the above-identified claims of the '762 Patent, FIS is also liable for indirectly infringing the above-identified claims of the '762 Patent in this judicial district and elsewhere in the United States by inducing direct infringement in violation of 35 U.S.C. § 271(b) and by contributing to direct infringement in violation of 35 U.S.C. § 271(c).

95.   Upon information and belief, FIS has been aware of the '762 Patent and its infringement since at least December 5, 2017 and its infringement is ongoing.

96.   The direct infringement induced or contributed to by FIS includes the use of the FIS Accused Products by FIS's customers acting in combination with FIS.

97.   FIS induces direct infringement of the above-identified claims of the '762 Patent by at least providing tools and instructions for its customers to provide certain limitations and/or perform certain steps that result in the directly infringing use. Upon information and belief, FIS further

provides instructions to its customers for use of the Accused Products to set up notifications and obtain account information in manners that infringe the above-identified claims of the '762 Patent. Since at least December 5, 2017, when one of its customers was placed on notice that the FIS Accused Products infringed the claims of the '762 Patent, FIS has actively encouraged its customers to commit direct infringement of the above-identified claims of the '762 Patent with knowledge that the acts so encouraged constitute infringement and a specific intent to infringe the above-identified claims of the '762 Patent.

98.   FIS's specific intent to cause its customers to directly infringe is shown by its knowledge of the '762 Patent and its knowledge that the Accused Products infringe the above-identified claims of the '762 Patent, as set forth above.

99.   Similarly, FIS contributes to direct infringement of the asserted claims of the '762 Patent by providing its customers with tools and software for operating the FIS Accused Products. Those tools are specific to the FIS Accused Products and are thus not staple articles of commerce. Nor do those tools have any substantial non-infringing uses, as their sole purpose is to deliver the FIS Accused Products to FIS's customers in a manner that infringes the asserted claims of the '762 Patent. FIS specifically designed (or had designed on its behalf) those tools to be used solely in connection with the FIS Accused Products in a manner that directly infringes the asserted claims of the '762 Patent.

Damages

100.   Defendants' acts of infringement have caused damage to Groove Digital and Groove Digital is entitled to recover from Defendants the damages it has sustained as a result of Defendants' wrongful acts in an amount subject to proof at trial. Defendants' infringement of Groove Digital's exclusive rights under the '762 Patent will continue to damage Groove Digital,

causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court. Defendants' ongoing infringement is willful and deliberate, as Defendants became aware of the infringing nature of the United Bank Accused Products and FIS Accused Products at the latest on December 5, 2017. Defendants' continued infringement of the '762 Patent despite their awareness of that infringement entitles Groove Digital to increased damages and reasonable attorneys' fees pursuant to 35 U.S.C. §§ 284 and 285.

PRAYER FOR RELIEF

WHEREFORE, Groove Digital prays that it have judgment against Defendants for the following:

(1)   Adjudging that Defendants have infringed the '762 Patent;

(2)   Permanently enjoining and restraining Defendants and their agents, servants, employees, affiliates, divisions, and subsidiaries, and those in association, active concert or participation with any of them, from further acts of infringement, contributory infringement or inducement of infringement of any asserted claim of the '762 Patent;

(3)   Awarding damages to Groove Digital, together with both pre-judgment and post-judgment interest;

(4)   Awarding increased damages pursuant to 35 U.S.C. § 284;

(5)   Finding this action constitutes an exceptional case pursuant to 35 U.S.C. § 285;

(6)   Awarding Groove Digital all of its costs in this action, including attorneys' fees and expenses; and

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(7)   Awarding such other and further relief, at law or in equity, to which Groove Digital

is justly entitled.

JURY DEMAND

Groove Digital hereby demands a jury trial on all issues so triable.

Dated: January 22, 2019   Respectfully submitted,

/s/ William E. Bradley
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CERTIFICATE OF SERVICE

I hereby certify that on January 22, 2019, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send a notification of such filing ("NEF") to the counsel of record who have appeared in this case on behalf of the parties.

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